



## **OFTEC**

Established in 1996 by Christian Streck, OFTEC GmbH is a SME sized company based in one of the industrial centers of Germany.

Main business area of OFTEC is development of industrial level robotic systems for paint and coating removal driven by UHP or heat induction systems.

Robotic crawler systems for industrial grade surface preparation are the foundation of OFTEC business. Operator protection by wireless remote control in combination with highly efficient processing of abrasive materials and liquid filtering by OFTEC technologies helps to reduce waist and machine downtimes.

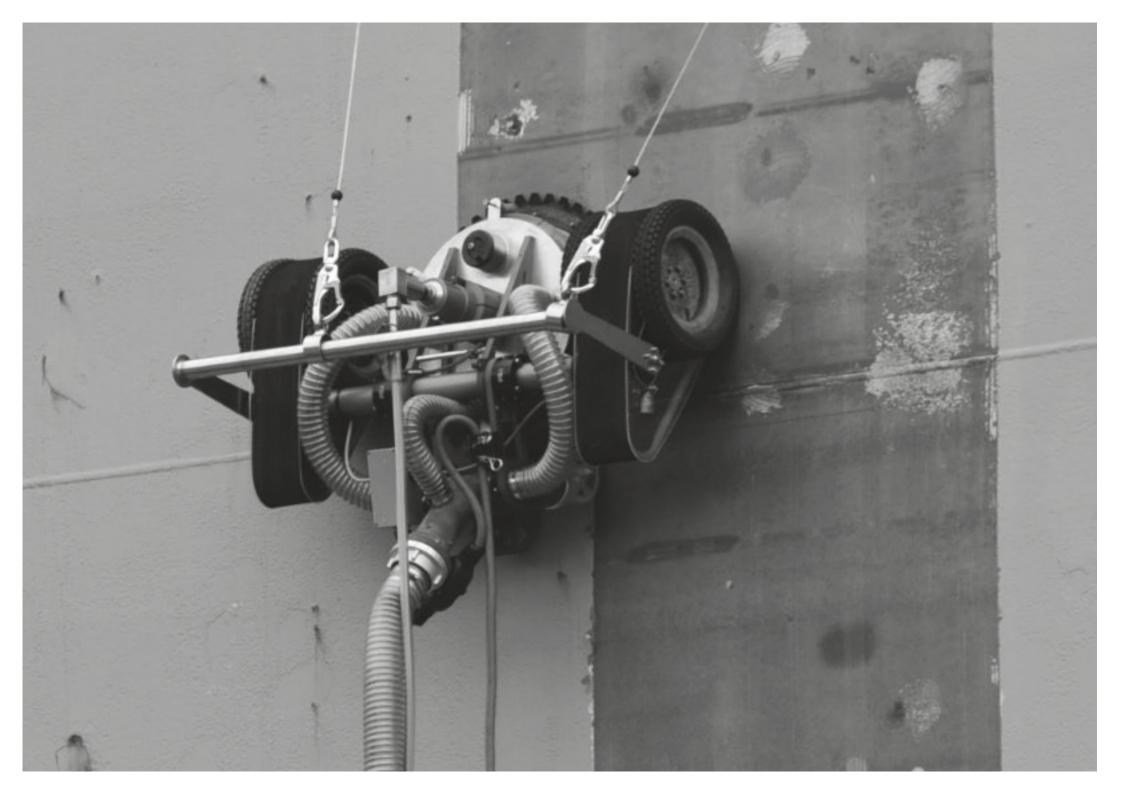
During large scale paint and coating removal projects stages in industrial environments automated system technology by OFTEC is economically more effective than manual work.

OFTEC crawler systems are available for rental and sales. Crawler are used in combination with UHP systems or heat induction systems for shipyards, offshore, storage tanks/chemical industry, public bridges and

power plant applications. The magnet-crawler-robots are used for removal of coating or paint on metal surfaces.

Robots are remotely controlled by an operator from a safe position. By adaptation to various UHP pumps up to 3.000 bar in combination with our own nozzle layout and technology to remove the waste we are able to provide a complete range of equipment tailored for specific applications. The crawler system might be used also for other applications as cutting, blasting and inspection work. Held by magnetic forces the robotic system will work in all directions and might also be adapted to work inside of pipelines/tubes.

OFTEC magnet-crawler-based robotic systems are the preferred solution for coating removal at demanding surfaces and materials.



## **Magnet - Crawler**

The Magnet Crawler is a carrier vehicle. It consists Advantages er construction includes two drive units. By magnetic force the Crawler is held on the steel surfaces to be treated. The magnets that are used are encapsulated in seawater resistant stainless steel and have a high adhesion force. This enables, among others, the work with high water pushback forces.

The electric (optionally pneumatic) drives enable an distance in addition operator safety is ensured. infinitely variable drive speed. The control is done via a remote control.

## **Applications**

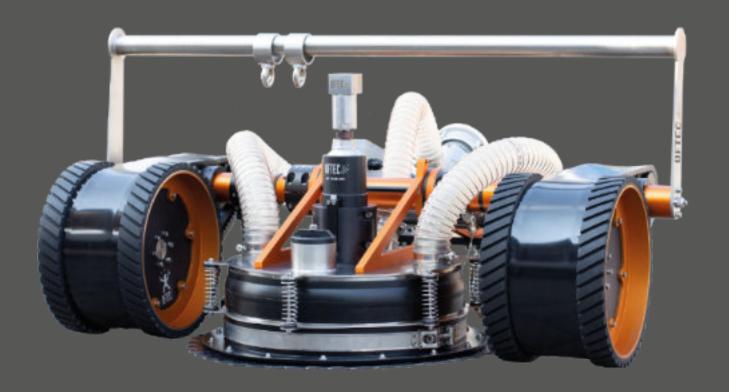
Actually the crawler is mainly used for cleaning of large tanks and ships in combination with high-pressure water up to 3000 bar. Optionally the waste water can be collected directly in combination with the removed material, this might be recycled on request with an additional filter system by OFTEC. Furthermore, there is an option to use the crawler for other applications, e.g. cutting, blasting and inspecton (camera) work.

of an aluminium lightweight construction. The carri- Scaffolding of objects becomes unneccessary subsequently saving time and costs. Because the crawler is operated and controlled remotely, continuous and fast workflows are possible. Using a crawler in combination with high-pressure water will increase the working speed in comparison to a handheld tool by the factor of five. While it is possible to work from a greater













# VacuMag 3000

### Technical Data VacuMag 3000

Working pressure: up to 2500 bar / 45 l/min. up to 3000 bar / 30 l/min.
Working width: up to 400 mm
Permanet magnets, encapsulated

Working width: Magnets: Operation voltage,

motors: Weight robot:

36 V app. 104 kg H 590 mm x W 1150 mm x D 950 mm Switchbox on carriage in stainless steel Radio remote control incl. 50 m cable Dimensions: Control system:

Weight Control box: app. 80 kg, incl. 50 m cable H 1200 mm x W 600 mm x D 600 mm to 110 - 230 V

Electrical CEE plug: 110-2
IP protection class: IP 65











## UniMag 3000

### Technical Data UniMag 3000

Working pressure:

up to 2500 bar / 45 l/min. up to 3000 bar / 30 l/min. up to 170 mm Working width: Swing boom: up to 1500 mm

Permanet magnets, encapsulated

Magnets:
Operation voltage,
motors: 36 V Weight robot:

app. 94 kg H 680 mm x W 780 mm x D 680 mm Switchbox on carriage in stainless steel Radio remote control incl. 50 m cable Dimensions: Control system:

Weight Control box: app. 83 kg, incl. 50 m cable H 1200 mm x W 600 mm x D 600 mm

Electrical CEE plug: 110 - 230 V IP protection class: IP 65

### Technical UniMag 3000 Sandblasting

Operation with any kind of blasting media Brackets for 1 - 3 sandblasting nozzle possible Up to 500 kN





## Cube 53

### Technical Data Cube S3

Working pressure: up to 2500 bar / 45 l/min. up to 3000 bar / 30 l/min.
Working width: up to 170 mm

Working width: Swing boom: Lifting adjustment: Magnets: up to 1500 mm high 400 mm / deep 250 mm Permanet magnets, encapsulated

36 V

Operation voltage, motors:

app. 72 kg H 680 mm x W 780 mm x D 680 mm Switchbox on carriage in stainless steel Radio remote control incl. 50 m cable Weight robot: Dimensions: Control system:

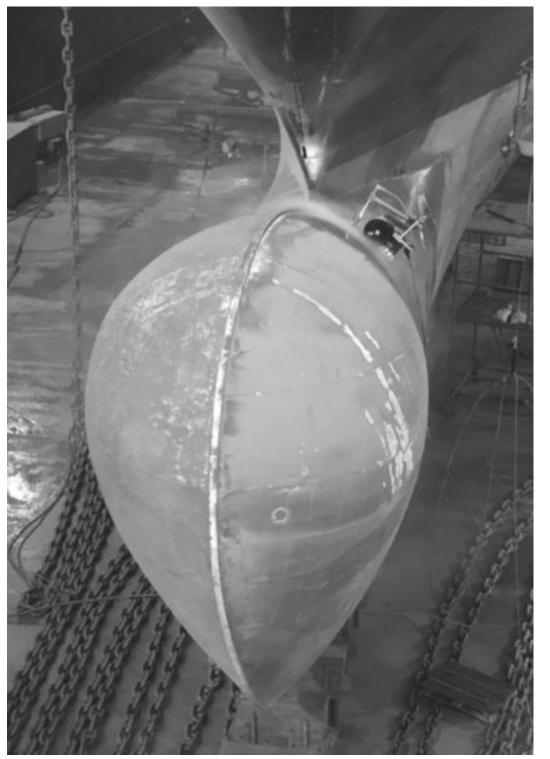
Weight Control box: app. 86 kg, incl. 50 m cable H 1200 mm x W 600 mm x D 600 mm

Electrical CEE plug: 110 - 3
IP protection class: IP 65 110 - 230 V

### **Technical Data Cube S3 Sandblasting**

Operation with any kind of blasting media Brackets for 1 - 3 sandblasting nozzle possible Up to 500 kN





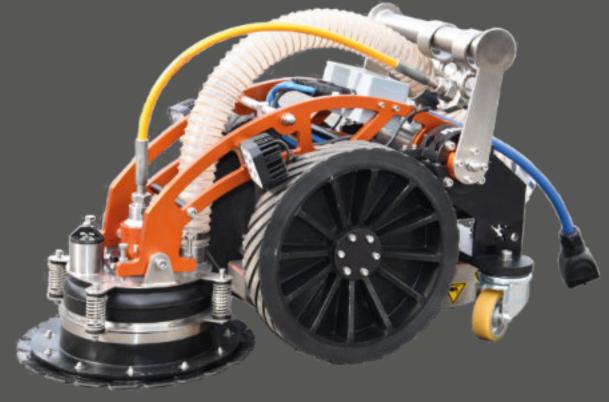












## Cube V3

### Technical Data Cube V3

Working pressure: up to 2500 bar / 45 l/min. up to 3000 bar / 30 l/min.
Working width: 200 mm

Permanet magnets, encapsulated

Working width: Magnets: Operation voltage, motors:

Weight robot:
Dimensions:
Control system:

36 V app. 72 kg H 700 mm x W 390 mm x D 680 mm Switchbox on carriage in stainless steel Radio remote control incl. 50 m cable

Weight Control box: app. 86 kg, incl. 50 m cable
Dimensions: H 1200 mm x W 600 mm x D 600 mm
Electrical CEE plug: 110 - 230 V
IP protection class: IP 65





### **WINCH SYSTEM**

Operation voltage, motors: 36 V Weight:

app. 178 kg H 1780 mm x W 1031 mm x D 810 mm Dimensions:

#### **REMOTE CONTROL**

Radio remote control for easy workflow management



### **CONVERSION SET SA 3**

- Transforming CUBE V3 into a CUBE S3 robotic solution for open water tooling
- Electric
- max. 3000 bar 30 l/min

#### **RADTAL SWING ARM**

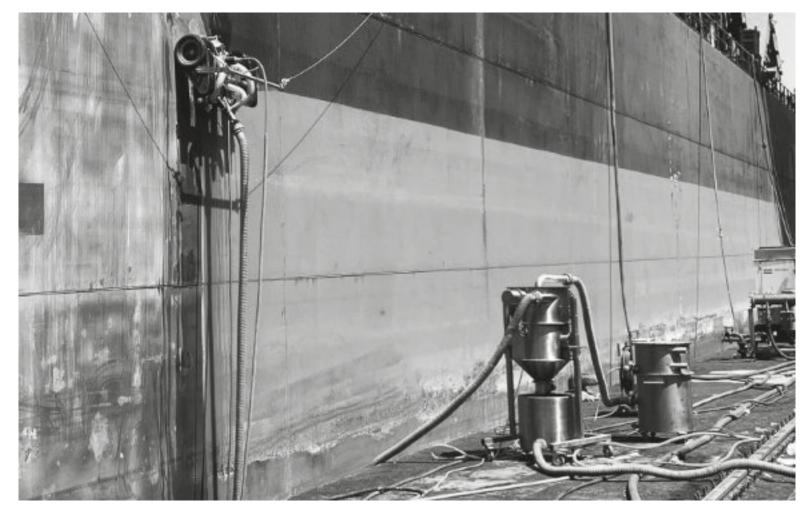
The Radial swing arm allows rotational movement for 360° nozzle operation.

- Electric max. 3000 bar 30 l / min

### **CONVERSION SET VC 3**

Transforming CUBE S3 into a CUBE V3 robotic system with wastewater vacuum and separation

- Electric
- max. 3000 bar 30 l/min











### **QUALITY & SERVICE**

- 24/7 full service package
- Consistent high product quality
- Inhouse development and production
- Made in Germany

### **SECURITY**

- Enables operator to work from a safe distance
- No working from scaffolding or lifting platform
- Safe and easy to all horizontal, overhead and vertical surfaces
- Sensor technology ensures that the pump switches off if contact with steel surface is lost
- Remote controlled system

#### **PRODUCTIVITY**

- Several times faster than working manually
- $\ {\sf Reduced \ operator \ fatigue}$
- 24/7 work without difficulty
- Up to 40 m<sup>2</sup>/h

#### **ON SITE SERVICE**

- Project preparation and planning
- Project set up
- Equipment commissioning
- On-Off-Shore support
- Worldwide distributor network





## CleanMaster 3000

### Handheld Watertool

### Technical Data CleanMaster 3000 L

 Working pressure:
 up to 2500 bar / 45 l/min. up to 3000 bar / 30 l/min.

 Working width:
 400 mm

 Weight:
 pp. 58 kg

 Dimensions:
 H 110 mm x W 55 mm x L 110 mm

### Technical Data CleanMaster 3000 S

 Working pressure:
 up to 2500 bar / 45 l/min. up to 3000 bar / 30 l/min.

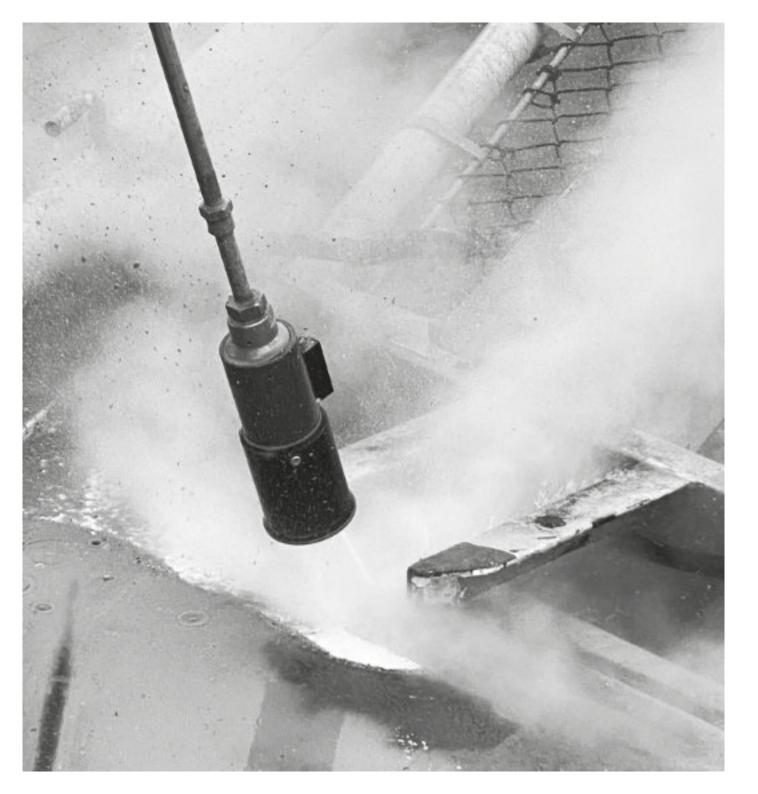
 Working width:
 200 mm

 Weight:
 app. 35 kg

 Dimensions:
 H 110 mm x W 45 mm x L 110 mm

Working width: Weight: Dimensions:







## **TDS 3000 MB**

Typical applications

Surface preparation: Cleaning
Raughening
Removing coatings
Concrete demolishing



### **TDS 3000 MB**

#### Technical Data TDS 3000 MB

Infinitely adjustable via magnetic Brake

For installation in automated systems or handlance work

Possible application

Surface preparation: Cleaning, Roughening, Removing coatings & Concrete demolishing

### **TDS 1000 MB**

#### Technical Data TDS 1500 MB

Working pressure: up to 1500 bar / 45 l / min Speed: max 3000 l/min Nozzle: M10

Infinitely adjustable via magnetic Brake

For installation in automated systems or handlance work

Possible application

Surface preparation: Cleaning, Roughening,

Removing coatings & Concrete demolishing

### **TDS 500 MB**

#### Technical Data TDS 600 MB

Working pressure: up to 600 bar / 45 l / min Speed: max 3000 l / min Nozzle: M10

Infinitely adjustable via magnetic Brake

For installation in automated systems or handlance work

Possible application

Surface preparation: Cleaning, Roughening,

Removing coatings & Concrete demolishing



## RRD 160 MB 1500/3000

#### Technical Data RRD 160 MB 1500/3000

Working pressure: max. 1500 bar / 160 l / min

max. 3000 bar / 45 l / min

Speed: max. 2000 1/min

Nozzle: M10

Infinitely adjustable via magnetic Brake pipe diameter 120 mm - 300 mm

(When using a pipe cleaning carriage up to 1200 mm) Possible application: For pipecleaning - and decoating

## RRD 112 MB 1500/3000

#### Technical Data RRD 112 MB 1500/3000

Working pressure: max. 1500 bar / 60 I / min max. 3000 bar / 45 I / min

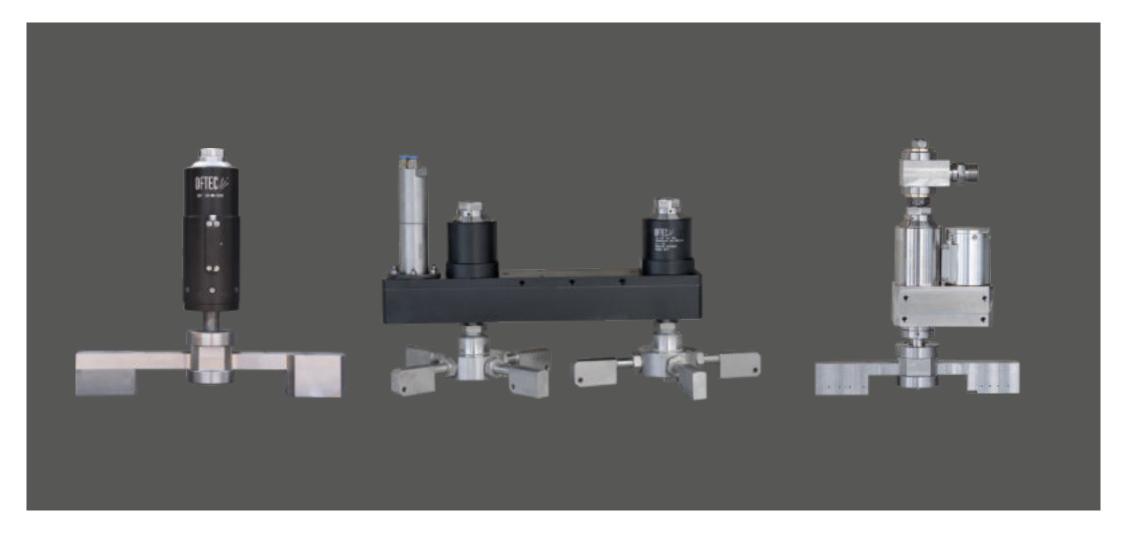
Speed: max. 2000 1/min

Nozzle: M10

Infinitely adjustable via magnetic Brake pipe diameter 90 mm - 300 mm

Possible application: For pipecleaning - and decoating





### **DDF 160 MB**

#### Technical Data DDF 160 MB

Working pressure: max. 3000 bar / 45 l / min

Speed: max. 3000 1/min

Nozzle: M10

Infinitely adjustable via magnetic Brake For installation in automated systems

Possible application: For surface cleaning - and decoating Bundle cleaning, tank cleaning or pipe cleaning

### DDF 124 L Duo

#### Technical Data DDF 124 L Duo

Working pressure: max. 3000 bar / 90 l / min

Speed: max. 3000 1/min

Nozzle: M10

Infinitely adjustable via air motor

Optional: electric, hydraulic or magnetic brake

For installation in automated systems

Possible application: For surface cleaning - and decoating

Bundle cleaning, tank cleaning or pipe cleaning

### **DDF 190 MB 1500**

#### Technical Data DDF 160 MB

Working pressure: max. 1500 bar / 260 l / min

Speed: max. 2000 1/min

Nozzle: M10

Infinitely adjustable via magnetic Brake

Optional: electric or hydraulic For installation in automated systems

Possible application: For surface cleaning - and decoating

Bundle cleaning, tank cleaning or pipe cleaning







## **Modular Suction System**

The OFTEC suction system consists of several modules that can be assembled depending on the requirement/usage.

Four modules are available actually, the system is expanded continuously.

The system is intended for to suck up wet sand, blasting material, slurries and water.

The suction modules are available in pneumatic and electric version, with different outputs.

The Kontisilo is a double flap silo that empties automatically and thus makes continuous suction possible.

The absorbed wastewater is emptied into a container and will be transferred into a tank by a membrane pump. For suction of wet sand, blasting material and slurries a version with big-bag-holder is available. By usage of jetfilter module the contaminated air absorbed together with the blasting medium will be cleaned. This is especially advantageous when absorbing media containing sand, blasting material and slurries. All available modules are made of stainless steel.





#### Module I - Double valve silo

Function principle:cyclone separatorDischarge container volume:45 litresSupply voltage:230 V / 50 HzControl voltage:24 V / DCPneumatic operating pressure:6-12 bar

Weight: app. 135 kg

**Dimensions:** H 1600 - 2000 mm x W 1000 mm x D 1200 mm

Material: stainless steel

Optional in pneumatic version

#### Module III - Air Vacuum Suction Device

Air transport volume: 1400 m³/h
Under-pressure: p=500 mbar
Compressor power: 8 bar at 16 m³/h
Weight: app. 75 kg

**Dimensions:** H 1000 mm x W 800 mm x D 800 mm

Material: stainless steel

#### Module IV - Electric Suction Device with Jet Filter

Power: 18 KW
Air transport volume: 1000 m³/h
Under-pressure: p=600 mbar
Supply voltage: 32 A

Cleaning: autometic compressed air, cleaning cycle

Discharge container volume: 30 |

**Supply voltage:** 400 V/50 - 60 = 8/Hz

Control voltage: 24 V/DC
Pneumatic operating pressure: 6 bar
Weight: app. 354 kg

**Dimensions:** H 1500 mm x W 830 mm x L 1850 mm

Material: stainless steel

Optional with H-filter

### **MODULAR SUCTION SYSTEM**





## Modular Filter System

modules which can be assembled depending on the etc. are filtered out via activated carbon filter specific requirements/usage during a project. Four component of the modular filter system. modules are available actually, the system is expanded continuously.

Designed for separating and cleaning paint, dirt particles and other pollutants, operation of the filter system in a process water recycling mode is possible. Usage of band filter and bag filter modules lead to separation of solid components, the filtered solids might

The OFTEC filter system is based upon individual be small as up to 1 µm. Pollutants such as lead, PCB



### **Belt filter system**

**Filter medium:** Filter fleece roll  $10 - 50 \mu$ 

Electric CEE plug: 220 V IP protection class: IP 65

**Control system:** Fully atomatic monotoring of the filter drain

Weight:

app. 122 kg H 1350 mm x W 1100 mm x D 800 mm Dimensions:

stainless steel Material:

### **Activated carbon filter AFS-600**

1x Activated Carbon Water Filter Filter:

2x Bag Water Filter

Filter medium: Activated Carbon
Filter medium: Bag filter 1 - 50 μ

Weight: app. 263 kg
Dimensions: H 1870 mm x W 1230 mm x D 1030 mm

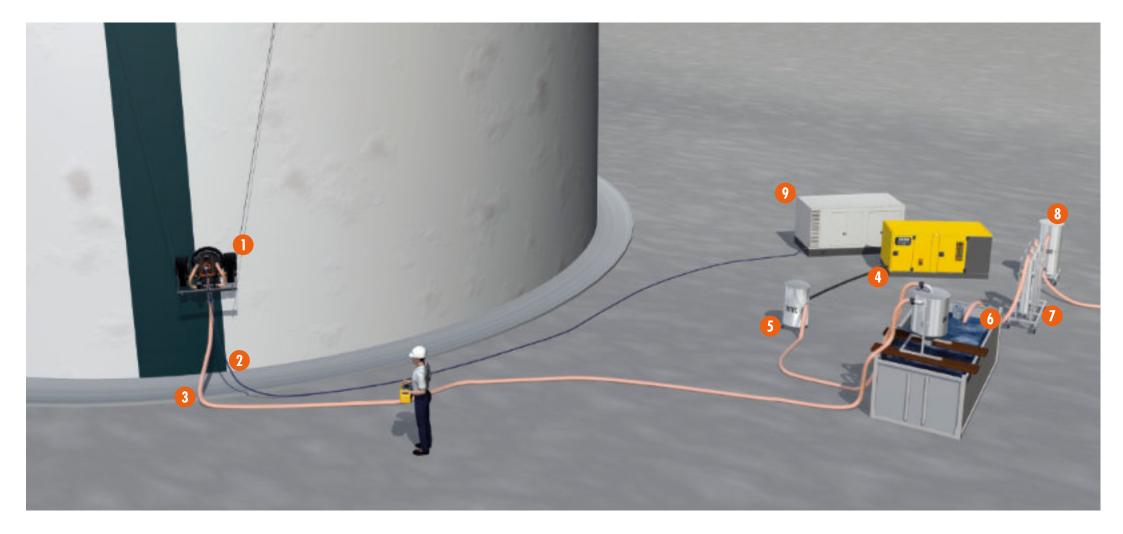
stainless steel Material:

### Bag filter BF-80

**Filter medium:** Bag filter 1 - 50 μ app. 30 kg

Dimensions: H 1400 mm x W 470 mm x D 450 mm

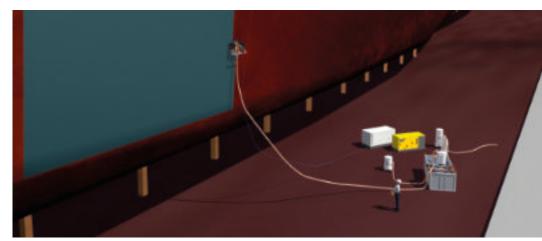
Material: stainless steel



### **WASTE WATER TREATMENT**

- OFTEC MAGNET CRAWLER VACUMAG 3000
- 2 UHP HOSE
- 3 WASTE WATER SUCTION HOSE
- 4 OFTEC DOUBLE VALVE SILO
- OFTEC AIR VACUUM SUCTION DEVICE

- 6 WASTE WATER PUMP
- OFTEC BAG FILTER SYSTEM
- 8 OFTEC ACTIVADED CARBON FILTER
- 9 UHP PUMP



## **WASTE WATER TREATMENT**



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